

OBSERVATIONS

ON THE

GULF PASSAGE,

OR THE

PASSAGE FROM JAMAICA THROUGH THE GULF OF FLORIDA
BY THE GRAND CAYMAN AND CAPE ST. ANTONIO;

AND ON THE

BAHAMA ISLANDS.

K-
BY CHARLES ROBERTS, MASTER IN THE ROYAL NAVY.

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HIGHNESS THE PRINCE OF WALES.

1795.

CONSERVATION

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WASHINGTON, D. C.

OBSERVATIONS

ON THE

GULF PASSAGE, &c.

FROM the west end of *Jamaica* to the Grand Cayman Island, the course is W. N. W. 55 leagues: the variation hereabout is $6^{\circ} 30'$ east, so that a W. by N. $\frac{1}{2}$ N. course will nearly hit the island. Off the east end of the Grand Cayman is a *Reef* which runs about $\frac{1}{4}$ mile into the sea, and that end being very low land, it makes it very dangerous in the night time, when you expect to make the island. I have known several ships much out in their reckonings in running this short distance, (particularly when they have met with light winds after leaving the west end of *Jamaica*) which is owing to the current setting to leeward or windward. I likewise recollect an instance of a ship in the year 1772, which ran ashore on this Reef, in a very fine moonlight night, when they thought they were past the island: they observed something black in the horizon, and imagined it was the reflection of the moon on the water, but it soon proved to be the land, which being low cannot be seen in the night at any great distance; and before they could rectify their mistake, they were on shore, and the ship was totally lost.

The GRAND CAYMAN, whose east end lies in latitude $19^{\circ} 20'$ north, is a long low island, running W. by S. 5 leagues, and W. $\frac{1}{2}$ N. 4 leagues. There is a tolerable watering place at the west end, called the *Hogsties*; but you must look out for a clear spot to let go your anchor in: the wind is off shore, and you may anchor in 15 fathoms, about 200 yards from the shore, abreast of the town. The southernmost point of the Grand Cayman lies in latitude $19^{\circ} 17'$ north, and is about half way down the island. In hauling round the west end, you meet with a small Kay to which you must give a birth of about 100 yards, and there is nothing else to fear: as you are going to the Hogsties, do not stretch far up above the town, on account of a shoal; but every where you can see the danger in the day time, the water being perfectly clear.

From the west end of the Grand Cayman to CAPE CORRIENTES on the south side of Cuba, the true course is N. 52° W. 80 leagues; and *per compass* N. W.

by W. Cape Corrientes, when first made, appears much like Cape St. Antonio, as the land, owing to a large bay, seems to terminate; but on stretching in, you will perceive it rising on the other side. Another observation which may serve to distinguish one Cape from the other, is, that at Cape Corrientes there are no cabbage-trees, whereas many are growing on Cape St Antonio, and you will see them topping over the others, which appear only like so many under bushes.

Cape Corrientes lies in latitude $21^{\circ} 48'$ north, and W. by S. 9 or 10 miles from Cape Gunwal; the shore between is bold to, but off the former, to the westward, there is a small Reef about 2 or 300 yards out. The Bay is very deep, and runs in N. $\frac{1}{2}$ W. nearly, *per compass*, about 4 or 5 miles; then it rounds off to the westward, and that part of it which is opposite to Cape Corrientes trenches about W. S. W. from hence the coast rounds gradually off to the westward and W. by N. to Cape St. Antonio.

To anchor in Cape Corrientes Bay, you have only to give the Cape a birth of about $\frac{1}{2}$ mile, and to run up keeping the weather shore well on board, then look out for the shoal water—I anchored here in 7 fathoms water, sandy bottom, about a mile and $\frac{1}{2}$ or near 2 miles above the point of the Cape; which bore S. by E. *per compass*: and when I veered to half a cable, I sounded abreast of the main chains, and had 90 fathoms; when I tried for ground over the taffrail, with 120 fathoms, which was all the line I had, I could find none, which shews how steep the bank is. I found wood here, but no water, although I make no doubt but water may be found.

From Cape Corrientes to CAPE ST. ANTONIO is 8 leagues, but the course is not straight; however it is all a bold shore, and no danger whatever $\frac{1}{2}$ mile off. Cape St. Antonio, or, as the sailors generally call it, Cape Antonio, lies in latitude $21^{\circ} 53' 22''$ north to south, a little rounding; the northernmost part is in $21^{\circ} 55' 16''$ and the southernmost in $21^{\circ} 51' 4''$ north. Its longitude, from my observation in 1789, is about $85^{\circ} 10'$ west of Greenwich. Four miles to the N. W. of the Cape, I had 13 fathoms water, rocky bottom, with patches of sand.

Cape St. Antonio, *per time-keeper*, lies from Kingston in Jamaica $8^{\circ} 10'$ west. I take Kingston to be in longitude about 77° , although the Requisite Tables place it more to the eastward. September the 11th 1793, I observed the distance of the sun and moon, which gave $84^{\circ} 54'$ longitude west. We made our way good from Cape St. Antonio N. N. E. 13 leagues, which will make that Cape lie in the longitude aforesaid $85^{\circ} 10'$ west, and confirms my former observation.

From Cape St. Antonio through the Gulf, many people choose to steer to the westward of north, until they get as far to the northward as $27^{\circ} 0'$ north, in order to avoid the COLORADOS; but this is by no means necessary, and as the wind hangs mostly from the eastward, you ought to hold every inch you can with safety. I have frequently steered from abreast of Cape St. Antonio, about 3 or 4 miles to the westward, a N. by E. $\frac{1}{2}$ E. course, *by compass*, and never saw

saw any thing of the Colorados: most ships which have been so unfortunate as to suffer by them, have generally run on shore in standing to the southward again after having stretched to the northward. To avoid this, I always made a point of standing to the northward as far as latitude $24^{\circ} 30'$ in the day time, or $24^{\circ} 0'$ in the night; then working up along the *Florida Kays*, stretching in during the day, and off in the night, I never failed to have a strong windward current along the Kays; and in the winter months, when the norths are frequent, if you have a fair wind into the Gulf, and smooth water, you run no risk of getting over amongst the *Bahama Kays*, which are more dangerous than the Florida Reef or Kays*.

The remarks I have been able to make on the Bahama Kays are as follow.

August the 9th 1794, at noon, observed in the latitude of $25^{\circ} 10'$ north, and steered E. by N. about $\frac{1}{2}$ an hour, at the rate of 4 miles an hour; then saw the great Bahama Bank right a-head, with several little Kays, or rather Rocks, out of water, bearing from N. E. to E. N. E. the nearest were not farther off than 3 or 4 miles; the southernmost of these lies in latitude $25^{\circ} 14'$ north. We then ran N. N. W. about 18 miles along a range of Kays on the edge of the Bank, which trenched in that direction till we came breast of the *Bemini*, which also border the margin of the Reef on the Bahama Bank. The soundings here to the westward, are sometimes narrow, and sometimes widen, but never to an extent above $2\frac{1}{2}$ or 3 miles in the widest part from the Kays, many of which are like so many rocks.

The BEMINIS or *Bemini Islands*, are 3 pretty large Kays, 2 of which trench about N. W. and S. E. from the northern to the southern extremity, forming a bight where the small division appears: the third lies aback of the inlet, farther in upon the bank. We intended watering there, but the wind was strong to the S. W. which prevented our anchoring. I think they lie in the latitude $25^{\circ} 35'$ or $40'$, as I cannot exactly say what effect the current might have had on us from noon to that time.

The west end of the GRAND BAHAMA, observed in January 1795, within $\frac{1}{4}$ of a mile from the shore, lies in latitude $26^{\circ} 39'$ north. The vessel was going 6

* THE TORTUGAS lie in latitude $24^{\circ} 32'$ north; and their longitude, from Greenwich is $84^{\circ} 10'$ west, which will not correspond with that of the Havanna deduced from the Tortugas, nor with the longitude of that town in the common charts. But I deduced it from three different observations of the sun and moon inferred from the several places where they were taken, from which I am convinced that the Havanna is not laid down far enough to the westward by upwards of $\frac{1}{2}$ a degree. June the 19th 1786, at 7^h 24' A. M. I made a lunar observation in latitude $27^{\circ} 40'$, (the Pan of Matanzas S. S. W.) about 10 leagues from the shore, which gave $81^{\circ} 53'$ west. Thence I steered due north *per compas*, with a strong current setting to the eastward, and fell in with the Florida Reef in latitude $25^{\circ} 0'$ north; and at 10^h A. M. made another lunar observation, which gave the longitude $81^{\circ} 32'$ west of Greenwich, about 2 miles to the eastward of the Florida Reef. From hence the coast trenches more to the northward. I have observed that this defect in the longitude prevails through almost the whole of the Bahama Islands, to the westward of *Cat Island*, and it may be easily accounted for, when we consider the little attention that has been paid in making the observations, from which the position of these islands is laid down.

knots an hour, on the edge of the Little Bahama Bank, in from 3 to 4 fathoms, and smooth water. About a quarter of an hour after we lost sight of the west end of the Grand Bahama, we saw the MEMBER ROCK, about a point on our weather bow, rising like a sail out of the water; and at 4 P. M. we were abreast of it. At sun set I went to the mast head, and could perceive the edge of the Reef, and the white water within it, trenching from N. by W. to N. N. W. as far as the eye could reach.

Should ships prefer working up along the Cuba shore, to the Florida Kays, which most do, owing to their not being well acquainted with the Florida shore, whose land is very low, and not to be seen a great way off; I would recommend to them not to venture in with the Cuba shore before they get above the *Cockcombs**, nor then within 3 or 4 leagues, till they are come as far up as *Table Mariel*, for they may be becalmed, and frequently meet with a lee current.

The best departure from the Cuba shore is from the *Pan de Matanzas*, which is about 18 leagues windward of the Havanna. Bring the Pan S. S. W. then steer N. N. E. for the Gulf, keeping a good look-out, and being careful not to cross the latitude of $24^{\circ} 0'$, or $24^{\circ} 10'$ before daylight; as the current is very deceiving here, and frequently sets to the N. W. though mostly to the eastward. Should you cross the latitude of $25^{\circ} 20'$ without seeing any thing of the land on either side, you may steer with safety N. by E. it is nearly the course of the stream to latitude $27^{\circ} 50'$, which is about the northernmost part of the Matanilla Reef and Little Bahama Bank; you may then haul to the eastward at pleasure.

EXTRACT of Mr. ROBERTS'S JOURNAL.

" August the 6th 1789, I observed in the latitude of $21^{\circ} 53' 22''$ north; the southernmost land in sight of *Cape Antonio* bore, per compass, S. E. 3 miles, and the northernmost land in sight N. E. about the same distance. We were then in soundings, and saw the bottom very plain under us. From this we steered N. 19° E. allowing for the variation, and the noon following I observed in the latitude of $23^{\circ} 9'$ north, having made 26' departure, and saw nothing of the *Colorados*. Then we made a N. by E. course good, and sounded on the *Tortuga Bank* in latitude $24^{\circ} 47'$ north, depth of water 37 fathoms, bottom, coral rock. We steered in N. by E. and N. N. E. until noon, and then sounded in 34 fathoms, latitude per observation $24^{\circ} 57'$ north. We then tacked and rounded the bank in 30 fathoms water. From hence we stretched across the channel, fetched in a Bay about 8 or 9 miles to leeward of the Havanna, and sent our boats on shore for

* September the 11th 1793, I observed (as I have already mentioned) the distance of the sun and moon, which gave $84^{\circ} 54'$ west; the high land of *Bona Vista* E. $\frac{1}{2}$ S. just visible, the weather very clear, and I suppose the distance from 40 to 45 miles.—The 12th observed again in $84^{\circ} 7'$ west; the westernmost part of the *Cockcombs* bore, per compass, S. E. $\frac{1}{2}$ S. about 10 leagues. Hence I conclude the *Cockcombs* lie in $83^{\circ} 49'$ west, and *Saddle Hill* in $83^{\circ} 34'$ west. Both *Saddle Hill* and the *Cockcombs* are a considerable distance inland; they appear to be more to the east in an easterly station than they actually are, and consequently the same in a westerly one.

water;

water; here is a very good watering place in by a round tower, and the water is not more than 400 yards from the shore. At noon we observed in latitude $23^{\circ} 10' 8''$ north, and *Fort Morro* bore *per compass* E. $\frac{1}{4}$ N. about 8 miles, so that the Fort, allowing for the variation, will be $23^{\circ} 9' 38''$ north.

In latitude $35^{\circ} 48'$ north, and about the longitude of $65^{\circ} 0'$ west, we met with a strong rippling on the surface of the water, which, I suppose, must be the southern edge of the Gulf stream.

The COLORADOS.

On the 27th of January 1770, his Majesty's Sloop *Jamaica* was lost on the *Colorados* in latitude $22^{\circ} 27'$ north. The high land of *Punta del Diablo*, or *Cape Buenavista* bore *per compass* E. by N. distance per estimation 18 leagues; here is a reef and a sandy Kay, but the Kay is overflowed at high water; within this, or between the Kay and Point Diablo is a very good channel of $4\frac{1}{2}$ and 5 fathoms water, and in many places they could not see the bottom. This must have been the north-west part of the *Colorados*, as the *Jamaica* observed at noon, before she ran on shore, in latitude $22^{\circ} 49'$ north, and steered S. E. by S. to the latitude of $22^{\circ} 35'$ north, that they made the high land of Cape Buenavista or Bonavista, bearing E. by S. they then steered S. by W. until they get on shore. All these particulars will be better known in perusing the following account.

Extract of a Letter from *Lieutenant John Payne* to Mr. *George Gauld*, concerning the *COLORADOS*, &c.
Dated on Board the *Renown*, Port-Royal Harbour,
Jamaica, May the 8th, 1770.

"After we left Pensacola we steered S. by E. nearly, till meeting with contrary winds and calm for 2 or 3 days, we at last got a fine breeze at N. N. E. which lasted us across the Gulf. On the 27th of January at noon we were in latitude $22^{\circ} 49'$ north; after working the day's work, found ourselves $2^{\circ} 18'$ east of Pensacola, which bore nearly N. by W. $\frac{1}{4}$ W. distance 157 leagues, and Cape St. Antonio S. E. by E. $\frac{1}{2}$ E. distance $31\frac{1}{2}$ leagues. We concluded we might haul up a point or two, as Cape St. Antonio bore so much to the eastward; we then hauled up S. E. by S. which course was continued for 3 hours, at the rate of 6 knots, when we made the high land within Cape Buenavista, bearing E. by S. $\frac{1}{4}$ S. about 19 or 20 leagues. Then we altered our course, and steered south; the wind still blowing fresh, we took in all our sails, except the fore sail; double reefed fore-top, single reefed main-top, and main-top-gallant sails. Having run on that course 16 miles, we again set the land, the southernmost of which in sight was bearing E. $\frac{1}{4}$ S. and the highest hill E. by N. about the same distance as before."

"Then

"Then we kept S. by W. till after 7 o'clock, when the carpenter, who was walking the fore-castle, cried out, "breakers a-head; for God's sake put the helm a starboard;" there being but few on the larboard bow, I happened to be below, and hearing these words, I instantly ran up the ladder, but before I could reach the top of it she rubbed the ground, which did so much shock our people that we could scarcely get any to furl the sails, &c. Soon after she struck, a great sea pooped us, and she swinging round with her head to the northward, broke her rudder short off under the counter. She was on the Coral rocks near a quarter of an hour before she bulged, the sea having forced her up in 7 feet water where she rolled very deep, and struck very hard. We thought then of cutting the masts away, which luckily did scarce any damage. When she first struck, seeing but few breakers a head, we thought of forcing her over before she bulged, and orders were given to throw the guns overboard, which were again contradicted before we could get them clear, for the empty casks were swimming about in the hold."

"We were on the wreck two nights and one day, employed in building a raft to carry some people on.—The 29th about 11 o'clock we left the wreck, and at noon had an observation which made us in latitude 22° 22' north, the ship then bearing west about $\frac{1}{2}$ a mile, and a sandy Kay E. $\frac{1}{4}$ N. about 2 miles, which being no more than 16 paces in circumference, was not able to contain us. We passed this Kay, and steered nearly east at the rate of $\frac{1}{2}$ a mile per hour, it being calm, and we towing a raft with 75 men on it knee-deep in water till 4 o'clock the next morning, when we came to for fear of any rocks or shoals off the shore. At sunrise we weighed, having lied in 5 fathoms water, sandy ground, about 4 leagues from Cape Buenavista, bearing then E. by S."

"At 11 o'clock we landed, and 20 men proceeded to get assistance; having then received a note from the captain who had left us soon after the ship had struck, we all joined him without having lost a man. The next day we all embarked, some in a large canoe, and the rest in boats for the Havanna. Having rowed about 2 $\frac{1}{2}$ leagues, the wind sprung up at E. N. E. and blew so fresh as to oblige us to lie by till the afternoon, when instead of abating, it became so strong as to force us to put back again to the place we left in the morning. The captain went up to a house about 5 miles in the country, whence he dispatched a messenger with a letter to the Governor of Havanna imploring his assistance. In the mean time we built little huts to live in, the captain supplying us with provisions such as beef, plantain and cocoa, roots, &c. During our stay we were very civilly treated. After 15 days the messenger returned, with letters to the captain, by which he was informed, that the Governor had sent a vessel with provisions for 85 men for a month. As soon as she arrived, we embarked for the island of Jamaica; but on the third day of our navigation, we were again cast away near Cape St. Antonio, at 9 o'clock at night, on the 19th of February."

"We got aground abreast of the Cape, it blowing a hard north; about 10 o'clock we cut the masts away; she was a schooner, and bulged. About 3 the next morning she parted from her bottom; the deck alone bore us, the seas washed over us, and we expected every minute to go to the bottom. At about 4 o'clock the deck parted just

just abaft the main-maft; the people being pretty equally divided on the different parts of the wreck, about fun rife we all landed fafe once more, by the bleffing of God, on terra firma, the feas having driven the wreck clofe to the rocks, and not a man received the fmalleft hurt. The captain went round to the fifhermens huts at the Cape, where we had left the pinnacle and long boat the night before, and embarked in the pinnacle to feek affiftance. The day following he fent two large canoes in which we all embarked from the huts, on the 23^d, for the place we were at before, about 5 leagues to the northward of Cape Buenavifta; it is called *Santa Yfabella*, and we arrived there the fecond day. During our ftay on fhore this time, we had nothing to eat but fresh beef and pork which we faved from the wreck, and ftinking brackifh water to drink. At our arrival at Santa Yfabella, we got refreshments, and the captain difpatched another meffenger to the Governor of Havanna, imploring his affiftance once more. On the 6th the meffenger returned, and on the 8th a vefTel arrived on which we quickly embarked, though fhe could fcarce hold us, for about 20 men could not flow below, but fhe brought us fafe to Port-Royal Harbour on the 14th of April. In this vefTel we ftruck juft abreaft of the laft wreck, trailed the ground oftentimes as we went up along fhore within the Ifland of *Pines*, and came through the *Jardines*, about 7 leagues to the eaftward of that ifland."

REMARKS ON THE FLORIDA OR GULF STREAM.

I have frequently traced the Gulf Stream from latitude 26°, and found it to fet about N. by E. to latitude 28°, and from this to 30° 45' north rather westerly; when on a fudden it turned off N. E. by E. or N. E. by E. $\frac{1}{2}$ E. to 35°, or about the latitude of Cape Hatteras. From this place the fream runs about E. by N. to longitude 69° or 70° weft, then about eaft rather fouterly: but I never found any eaftern current to the northward of the 38th parallel of latitude north.

It is commonly underftood, that this current runs more to the northward than what I have mentioned, and that it borders clofe on *Nantucket Shoals*: this has been fo much afferted, and fo generally believed that many fhips from Jamaica and the Carolinas, &c. fupposing themfelves in the fream, have allowed for it, when they were entirely out of it to the northward; by this means their reckonings have become greatly a head of the fhip. Others on the contrary being actually in the fream, and thinking they were to the fouthward of it, have been hurled on imperceptibly a head of their reckoning. Thefe circumftances induced me to trace the Florida fream through the different windings, to try its velocity, and to meafure its breadth, which I have done with fome degree of fuccefs, when I was cruifing on the coaft of America, in His Majesty's fhip *Orpheus*; and alfo from *twenty-four* paffages in different merchantmen, moftly under my command, from Weft Florida and Jamaica.

From the Bar of Charleston to the inner edge of the Gulf fream, I found the diftance to be 18 leagues, by meafure; and from the fame inner edge to

B

Charleston

Charleston Bar between 20 and 21 leagues; this distance I measured four times successively, and found it mostly the same. The difference between the measured distance in and off, I impute to a southern and western current, which I have always observed on the coast of America; within the stream, but more particularly in soundings, this current in general runs about 12 miles in 24 hours.

The breadth of the stream off Charleston I have found from 20 to 21 leagues; off Cape Hatteras from 24 to 25 leagues; and its velocity from 55 to 60 miles in 24 hours. In longitude 69° west, I have found it from latitude 36° to $37^{\circ} 40'$, and its velocity from 45 to 50 miles in 24 hours. These are to be considered only as the mean velocities, for I have frequently found them something more, and something less. On the edge of the stream there are strong rippings, especially in fine weather, which in general are very perceptible.

In the year 1785, being on my passage from Liverpool to Philadelphia, in the *Little Jean* of London, when I got as far to the westward as longitude 68° west, and latitude $36^{\circ} 37'$ north, supposing myself to the southward of the stream, I made nearly a west course for several days by account. The breeze was light, and my distance did not exceed 60 or 65 miles a day; during this time I had several opportunities of observing the distance of the sun and moon, and was astonished to find that in three days time I had not increased my longitude more than $50'$ the first and second days. I imagined some error had been made in my observations; but from their concurrence with the observation of the third day, I became certain that I was in the Gulf stream. I then directed my course to the northward, in order to cross it; and in latitude 38° I spoke a schooner from Port-au-Prince to Boston, who told me they had come that morning through the rippling of the southern part of the stream, and imagined themselves in the stream. But I was well convinced that what they took for the southern rippling was the northern, and consequently they were the whole breadth of the stream out in their supposition; which mistake must happen to more than one mariner.—When I got in this latter latitude of 38° , willing to try whether the stream ran so far to the northward or not, I kept the same parallel until I came on the edge of soundings off the Delaware; but instead of meeting with the eastern stream in this latitude, I found a western current, which set at the rate of about 12 miles in 24 hours; this at once convinced me that I was within the Gulf stream.

I have frequently known when I have gone into or come out of the Gulf stream, by the difference of the heat of the water. This observation was first communicated to me by Captain (now Rear Admiral) *John Colpoys* of the King's ship *Orpheus*, when cruising on the coast of America. The difference is so great, particularly in the winter time, that I have known it to raise and sink the thermometer *five degrees*.

The current I have just now mentioned, is occasioned by the continual blowing of the trade-winds; they raise the surface of the water above the common level

level by a succession of waves impelled in or near the same direction, almost without intermission.—And the direction of these winds being from east to west, as they raise the surface of the water to the westward, they depress it equally to the eastward.

From latitude 25° to 28° is the space between the variable and trade-winds, which in general goes by the name of the *Horse Latitudes**, among the New England traders to the West Indies, &c. It is remarkable by its continual change of winds and weather, and subject to much rain, thunder and lightning, gusts of wind, and calms. But to the northward of this, upon the coast of America, and more than one third across the Atlantic Ocean, the westerly winds prevail more than two thirds of the year; they have nearly the same effect on the surface of the water, as the Trade-winds, but in a contrary direction, depressing that surface on the American coast, and raising it in the Atlantic, to the northward of the limits of the Trade-winds.

From this circumstance, the surface of the water in the Gulf of Mexico will be higher than on the coast of America; and the only outlet of the water to restore the equilibrium being, between the Bahama Islands and Bank, and the Florida shore, a channel, not more than 25 leagues broad in the narrowest part, so large a body of water, compressed in so small a passage, must run with a great velocity. Evidences of that effect we have every day before us in England, particularly in Portsmouth harbour, where the passage is very narrow in, but the harbour is extensive, when you get above the King's yard, and rears a large body of water, whose velocity continues a great way up, chiefly when the banks are overflowed; but the moment you turn Block House Point, the current by the shore sets directly contrary to the stream of the tide.

REMARKS ON THE BAHAMA ISLANDS, WITH SAILING DIRECTIONS.

The BAHAMAS in general are erroneously laid down in all the charts, both in respect to latitude and longitude: therefore ships navigating near them ought to keep a good look-out, and must never attempt to run in the night, as the various currents here are very dangerous.

On sailing from Europe to NEW PROVIDENCE, which is the principal settlement, and the seat of government, I would recommend to run for Eleuthera, in latitude $25^{\circ} 20'$, or $25^{\circ} 25'$, but by no means to exceed $25^{\circ} 30'$ north, that being

* These latitudes have generally been circumscribed at random, or erroneously laid down. "The American Navigators, says Mr. Wynne, (p. 522 of the second volume of his *General History of the British Empire in America*,) never pass between the Bermudas (in 32° latitude north) and Cape Hatteras, which is in 35° of north latitude, without terror. They call them the HORSE LATITUDES, because, on account of the violent gales of wind they meet in traversing them, they are frequently obliged to throw the horses overboard, which they are carrying to the West India Islands, and to the Dutch settlements at Surinam."

nearly

nearly the northern part of HARBOUR ISLAND, which is the corner to be turned, in going to New Providence; this lies in latitude $25^{\circ} 31'$ north, and longitude west from Greenwich, by observation taken in sight of the island at sea, $77^{\circ} 47'$.

The *Hole of the Rock*, called also the *Hole in the Wall*, is the southernmost part of the Island ABACO; it lies in latitude $25^{\circ} 57'$ north, and longitude west from Greenwich $78^{\circ} 15'$.—The variation hereabouts was $6^{\circ} 30'$ east, in 1786.

From the west end of Harbour Island to EGG ISLAND the course is W. by S. but a Reef runs out 3 or 4 miles from the shore, which you must be careful to avoid, as there are several Rocks upon the outer edge just even with the surface of the water: these may easily be observed by placing a hand on the fore-yard, or bowsprit end. The water here, as well as through all the Bahama Islands, is so perfectly clear, that, by keeping a hand aloft, you will see every danger which can affect you.

From Egg Island to Providence, the course is nearly S. W. by S. about 11 leagues, and the Kays upon the edge of the bank form a semi-circle nearly. In the winter months, when the northerly winds prevail, you must cautiously avoid to get embayed here, as there is no harbour where a ship can ride in safety*, and the Reef is steep to. In the summer months the northerly winds are seldom known here, and the easterly or trade winds are blowing; you may then keep this shore well on board, to prevent the current sweeping you past the harbour of Providence, as it would be rather difficult, in case of a lee current, to regain it again.

The town of NASSAU, which is the capital of New Providence, may be easily known by the government house, a large white house upon the top of the hill, and readily seen over HOG ISLAND. Bring this house to bear S. S. W. or S. S. W. $\frac{1}{4}$ W. and then steer with those bearings on, until you come within 2 or 3 miles of Hog Island, when you heave to till the pilot comes off.

Round the west end of Hog Island, is the going into the harbour; there are 18 feet water, sandy bottom, and bad holding ground. In the middle of the harbour, there is a bank with only 3 or 4 feet water, which runs up a considerable way, having a channel on each side of it.

From the south part of the Island of Abaco, or the Hole in the Rock, to the west part of Hog Island, which is the going into the Harbour of Providence, the course is S. $\frac{1}{4}$ W. or south *per compas*; but beware of the current which sets through between the BERRY ISLANDS and Abaco: in general it runs very strong here, and not always in the same direction. The Hole in the Rock is steep to, and clear of danger; but within it, in the bights to the westward, is a shoal with very little water on it.

* Since writing these directions, an inlet to the Bahama Bank has been discovered, between the east of Rose Island and the Booby Rocks, which is about half way between Egg Island and Nassau, where 27 feet water may be carried through. A plan of which was delivered to me last May by John Earl of Dunmore, Governor of those Islands; and is added upon the Chart.



